

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

What is claimed is:

1-48. **(Cancelled)**

49. **(Original)** A peptide of formula V, $RX_6X_7X_8X_9$ (SEQ ID No. 293),
wherein

X_6 is arginine, serine or lysine;

X_7 is leucine, isoleucine or valine;

X_8 is asparagine, alanine, glycine or isoleucine; and

X_9 is phenylalanine;

or variants thereof.

50. **(Currently Amended)** A peptide according of the formula,

$RX_6X_7X_8X_9$ (SEQ ID No. 293) or variants thereof,

wherein[[;]]:

(a) R is unchanged or conservatively substituted by a basic amino acid;

(b) X_6 is substituted by any amino acid capable of providing at least one site for participating
in hydrogen bonding;

(c) X_7 is unchanged or conservatively substituted;

(d) X_8 is unchanged or conservatively substituted; [[and]]or

(e) X_9 is unchanged or substituted by any aromatic amino acid.

51. **(Currently Amended)** A peptide according to formula V,

$RX_6X_7X_8X_9$ (SEQ ID No. 293) or variants thereof,

wherein:

(a) R is replaced by either a basic residue ~~such as lysine~~ or an uncharged natural or unnatural amino acid residue, ~~such as citrulline (Cit), homoserine, histidine, norleucine (Nle), or glutamine;~~

(b) X₆ is replaced by a natural or unnatural amino acid residue ~~such as asparagine, proline, aminoisobutyric acid (Aib) or sarcosine (Sar)~~, or an amino acid residue capable of forming a cyclic linkage ~~such as ornithine;~~

(c) X₇ is replaced with a natural or unnatural amino acid residue having a slightly larger aromatic or aliphatic side chain, ~~such as norleucine, norvaline, cyclohexylalanine (Cha), phenylalanine or 1-naphthylalanine (1Nal);~~

(d) X₈ is replaced with a natural or unnatural amino acid residue having a slightly larger aromatic or aliphatic side chain, ~~such as norleucine, norvaline, cyclohexylalanine (Cha), phenylalanine or 1-naphthylalanine (1Nal);~~ [[and]]or

(e) X₉ is replaced with a natural or unnatural amino acid ~~such as leucine, cyclohexylalanine (Cha), homophenylalanine (Hof), tyrosine, para-fluorophenylalanine (pFPhe), meta-fluorophenylalanine (mFPhe), tryptophan, 1-naphthylalanine (1Nal), 2-naphthylalanine (2Nal), meta-chlorophenylalanine (mClPhe), biphenylalanine (Bip) or (Tic).~~

52. (New) The peptide of claim 50, wherein R is unchanged or conservatively substituted by a basic amino acid.

53. (New) The peptide of claim 50, wherein X₆ is substituted by any amino acid capable of providing at least one site for participating in hydrogen bonding.

54. (New) The peptide of claim 50, wherein X₇ is unchanged or conservatively substituted.

55. (New) The peptide of claim 50, wherein X₈ is unchanged or conservatively substituted.

56. (New) The peptide of claim 50, wherein X₉ is unchanged or substituted by any aromatic amino acid.

57. (New) The peptide of claim 51, wherein R is replaced by either a basic residue or an uncharged natural or unnatural amino acid residue.
58. (New) The peptide of claim 57, wherein the basic residue is lysine.
59. (New) The peptide of claim 57, wherein the uncharged natural or unnatural amino acid residue is selected from the group consisting of citrulline (Cit), homoserine, histidine, norleucine (Nle) and glutamine.
60. (New) The peptide of claim 51, wherein X₆ is replaced by a natural or unnatural amino acid residue, or an amino acid residue capable of forming a cyclic linkage.
61. (New) The peptide of claim 60, wherein the natural or unnatural amino acid residue is selected from the group consisting of asparagine, proline, aminoisobutyric acid (Aib) and sarcosine (Sar).
62. (New) The peptide of claim 60, wherein the amino acid residue capable of forming a cyclic linkage is ornithine.
63. (New) The peptide of claim 51, wherein X₇ is replaced with a natural or unnatural amino acid residue having a slightly larger aromatic or aliphatic side chain.
64. (New) The peptide of claim 63, wherein the natural or unnatural amino acid residue having a slightly larger aromatic or aliphatic side chain is selected from the group consisting of norleucine, norvaline, cyclohexylalanine (Cha), phenylalanine and 1-naphthylalanine (1Nal).
65. (New) The peptide of claim 51, wherein X₈ is replaced with a natural or unnatural amino acid residue having a slightly larger aromatic or aliphatic side chain.

66. **(New)** The peptide of claim 65, wherein the natural or unnatural amino acid residue having a slightly larger aromatic or aliphatic side chain is selected from the group consisting of norleucine, norvaline, cyclohexylalanine (Cha), phenylalanine and 1-naphthylalanine (1Nal).
67. **(New)** The peptide of claim 51, wherein X₉ is replaced with a natural or unnatural amino acid.
68. **(New)** The peptide of claim 67, wherein the natural or unnatural amino acid is selected from the group consisting of leucine, cyclohexylalanine (Cha), homophenylalanine (Hof), tyrosine, para-fluorophenylalanine (pFPhe), meta-fluorophenylalanine (mFPhe), trptophan, 1-naphthylalanine (1Nal), 2-naphthylalanine (2Nal), meta-chlorophenylalanine (mClPhe), biphenylalanine (Bip) and 1,2,3,4-Tetrahydroisoquinoline-3-carboxylic acid (Tic).
69. **(New)** The peptide as in any of claims 49-51, wherein the N-terminal is acylated.
70. **(New)** The peptide as in any of claims 49-51, wherein R is substituted by citrulline.
71. **(New)** A peptide selected from the group consisting of:
- | | | | | | | | |
|----|-----|-----|-----|-----|------|-----------------|------------------|
| H- | Arg | Arg | Leu | Asn | Phe | NH ₂ | (SEQ ID No. 294) |
| H- | Arg | Arg | Leu | Asn | pFF | NH ₂ | (SEQ ID No. 295) |
| H- | Arg | Arg | Leu | Asn | mClF | NH ₂ | (SEQ ID No. 296) |
| H- | Arg | Arg | Leu | Ala | Phe | NH ₂ | (SEQ ID No. 297) |
| H- | Arg | Arg | Leu | Ala | pFF | NH ₂ | (SEQ ID No. 298) |
| H- | Arg | Arg | Leu | Ala | mClF | NH ₂ | (SEQ ID No. 299) |
| H- | Arg | Arg | Leu | Gly | Phe | NH ₂ | (SEQ ID No. 300) |
| H- | Arg | Arg | Leu | Gly | pFF | NH ₂ | (SEQ ID No. 301) |
| H- | Arg | Arg | Leu | Gly | mClF | NH ₂ | (SEQ ID No. 302) |
| H- | Arg | Arg | Ile | Asn | Phe | NH ₂ | (SEQ ID No. 303) |
| H- | Arg | Arg | Ile | Asn | pFF | NH ₂ | (SEQ ID No. 304) |
| H- | Arg | Arg | Ile | Asn | mClF | NH ₂ | (SEQ ID No. 305) |
| H- | Arg | Arg | Ile | Ala | Phe | NH ₂ | (SEQ ID No. 306) |

H-	Arg	Arg	Ile	Ala	pFF	NH ₂	(SEQ ID No. 307)
H-	Arg	Arg	Ile	Ala	mClF	NH ₂	(SEQ ID No. 308)
H-	Arg	Arg	Ile	Gly	Phe	NH ₂	(SEQ ID No. 309)
H-	Arg	Arg	Ile	Gly	pFF	NH ₂	(SEQ ID No. 310)
H-	Arg	Arg	Ile	Gly	mClF	NH ₂	(SEQ ID No. 311)
H-	Arg	Arg	Val	Asn	Phe	NH ₂	(SEQ ID No. 312)
H-	Arg	Arg	Val	Asn	pFF	NH ₂	(SEQ ID No. 313)
H-	Arg	Arg	Val	Asn	mClF	NH ₂	(SEQ ID No. 314)
H-	Arg	Arg	Val	Ala	Phe	NH ₂	(SEQ ID No. 315)
H-	Arg	Arg	Val	Ala	pFF	NH ₂	(SEQ ID No. 316)
H-	Arg	Arg	Val	Ala	mClF	NH ₂	(SEQ ID No. 317)
H-	Arg	Arg	Val	Gly	Phe	NH ₂	(SEQ ID No. 318)
H-	Arg	Arg	Val	Gly	pFF	NH ₂	(SEQ ID No. 319)
H-	Arg	Arg	Val	Gly	mClF	NH ₂	(SEQ ID No. 320)
H-	Arg	Ser	Leu	Asn	Phe	NH ₂	(SEQ ID No. 321)
H-	Arg	Ser	Leu	Asn	pFF	NH ₂	(SEQ ID No. 322)
H-	Arg	Ser	Leu	Asn	mClF	NH ₂	(SEQ ID No. 323)
H-	Arg	Ser	Leu	Ala	Phe	NH ₂	(SEQ ID No. 324)
H-	Arg	Ser	Leu	Ala	pFF	NH ₂	(SEQ ID No. 325)
H-	Arg	Ser	Leu	Ala	mClF	NH ₂	(SEQ ID No. 326)
H-	Arg	Ser	Leu	Gly	Phe	NH ₂	(SEQ ID No. 327)
H-	Arg	Ser	Leu	Gly	pFF	NH ₂	(SEQ ID No. 328)
H-	Arg	Ser	Leu	Gly	mClF	NH ₂	(SEQ ID No. 329)
H-	Arg	Ser	Ile	Asn	Phe	NH ₂	(SEQ ID No. 330)
H-	Arg	Ser	Ile	Asn	pFF	NH ₂	(SEQ ID No. 331)
H-	Arg	Ser	Ile	Asn	mClF	NH ₂	(SEQ ID No. 332)
H-	Arg	Ser	Ile	Ala	Phe	NH ₂	(SEQ ID No. 333)
H-	Arg	Ser	Ile	Ala	pFF	NH ₂	(SEQ ID No. 334)
H-	Arg	Ser	Ile	Ala	mClF	NH ₂	(SEQ ID No. 335)
H-	Arg	Ser	Ile	Gly	Phe	NH ₂	(SEQ ID No. 336)
H-	Arg	Ser	Ile	Gly	pFF	NH ₂	(SEQ ID No. 337)
H-	Arg	Ser	Ile	Gly	mClF	NH ₂	(SEQ ID No. 338)
H-	Arg	Ser	Val	Asn	Phe	NH ₂	(SEQ ID No. 339)
H-	Arg	Ser	Val	Asn	pFF	NH ₂	(SEQ ID No. 340)
H-	Arg	Ser	Val	Asn	mClF	NH ₂	(SEQ ID No. 341)
H-	Arg	Ser	Val	Ala	Phe	NH ₂	(SEQ ID No. 342)
H-	Arg	Ser	Val	Ala	pFF	NH ₂	(SEQ ID No. 343)
H-	Arg	Ser	Val	Ala	mClF	NH ₂	(SEQ ID No. 344)
H-	Arg	Ser	Val	Gly	Phe	NH ₂	(SEQ ID No. 345)
H-	Arg	Ser	Val	Gly	pFF	NH ₂	(SEQ ID No. 346)
H-	Arg	Ser	Val	Gly	mClF	NH ₂	(SEQ ID No. 347)

H-	Arg	Lys	Leu	Asn	Phe	NH ₂	(SEQ ID No. 348)
H-	Arg	Lys	Leu	Asn	pFF	NH ₂	(SEQ ID No. 349)
H-	Arg	Lys	Leu	Asn	mClF	NH ₂	(SEQ ID No. 350)
H-	Arg	Lys	Leu	Ala	Phe	NH ₂	(SEQ ID No. 351)
H-	Arg	Lys	Leu	Ala	pFF	NH ₂	(SEQ ID No. 352)
H-	Arg	Lys	Leu	Ala	mClF	NH ₂	(SEQ ID No. 353)
H-	Arg	Lys	Leu	Gly	Phe	NH ₂	(SEQ ID No. 354)
H-	Arg	Lys	Leu	Gly	pFF	NH ₂	(SEQ ID No. 355)
H-	Arg	Lys	Leu	Gly	mClF	NH ₂	(SEQ ID No. 356)
H-	Arg	Lys	Ile	Asn	Phe	NH ₂	(SEQ ID No. 357)
H-	Arg	Lys	Ile	Asn	pFF	NH ₂	(SEQ ID No. 358)
H-	Arg	Lys	Ile	Asn	mClF	NH ₂	(SEQ ID No. 359)
H-	Arg	Lys	Ile	Ala	Phe	NH ₂	(SEQ ID No. 360)
H-	Arg	Lys	Ile	Ala	pFF	NH ₂	(SEQ ID No. 361)
H-	Arg	Lys	Ile	Ala	mClF	NH ₂	(SEQ ID No. 362)
H-	Arg	Lys	Ile	Gly	Phe	NH ₂	(SEQ ID No. 363)
H-	Arg	Lys	Ile	Gly	pFF	NH ₂	(SEQ ID No. 364)
H-	Arg	Lys	Ile	Gly	mClF	NH ₂	(SEQ ID No. 365)
H-	Arg	Lys	Val	Asn	Phe	NH ₂	(SEQ ID No. 366)
H-	Arg	Lys	Val	Asn	pFF	NH ₂	(SEQ ID No. 367)
H-	Arg	Lys	Val	Asn	mClF	NH ₂	(SEQ ID No. 368)
H-	Arg	Lys	Val	Ala	Phe	NH ₂	(SEQ ID No. 369)
H-	Arg	Lys	Val	Ala	pFF	NH ₂	(SEQ ID No. 370)
H-	Arg	Lys	Val	Ala	mClF	NH ₂	(SEQ ID No. 371)
H-	Arg	Lys	Val	Gly	Phe	NH ₂	(SEQ ID No. 372)
H-	Arg	Lys	Val	Gly	pFF	NH ₂	(SEQ ID No. 373)
H-	Arg	Lys	Val	Gly	mClF	NH ₂	(SEQ ID No. 374)
H-	Arg	Arg	Leu	Ile	pFF	NH ₂	(SEQ ID No. 375)
H-	Cit	Cit	Leu	Ile	pFF	NH ₂	(SEQ ID No. 376)
H-	Arg	Arg	Leu	Ile	Phe	NH ₂	(SEQ ID No. 377)

72. (New) The peptide of claim 71, wherein the peptide is selected from the group consisting of:

H-	Arg	Arg	Leu	Asn	Phe	NH ₂	(SEQ ID No. 294)
H-	Arg	Arg	Leu	Asn	pFF	NH ₂	(SEQ ID No. 295)
H-	Arg	Arg	Leu	Asn	mClF	NH ₂	(SEQ ID No. 296)
H-	Arg	Arg	Leu	Ala	pFF	NH ₂	(SEQ ID No. 298)
H-	Arg	Arg	Leu	Ala	mClF	NH ₂	(SEQ ID No. 299)
H-	Arg	Arg	Leu	Gly	pFF	NH ₂	(SEQ ID No. 301)

H- Arg Arg Leu Gly mClF NH₂ (SEQ ID No. 302)
 H- Arg Arg Ile Asn pFF NH₂ (SEQ ID No. 304)
 H- Arg Arg Ile Asn mClF NH₂ (SEQ ID No. 305)
 H- Arg Arg Ile Ala pFF NH₂ (SEQ ID No. 307)
 H- Arg Arg Ile Ala mClF NH₂ (SEQ ID No. 308)
 H- Arg Lys Leu Asn mClF NH₂ (SEQ ID No. 350)
 H- Arg Lys Leu Ala pFF NH₂ (SEQ ID No. 352)
 H- Arg Lys Leu Ala mClF NH₂ (SEQ ID No. 353)
 H- Arg Lys Leu Gly pFF NH₂ (SEQ ID No. 355)
 H- Arg Lys Ile Asn pFF NH₂ (SEQ ID No. 358)
 H- Arg Arg Leu Ile pFF NH₂ (SEQ ID No. 375)

73. (New) The peptide of claim 71, wherein the peptide is selected from the group consisting of:

H- Arg Arg Leu Asn Phe NH₂ (SEQ ID No. 294)
 H- Arg Arg Leu Asn pFF NH₂ (SEQ ID No. 295)
 H- Arg Arg Leu Asn mClF NH₂ (SEQ ID No. 296)
 H- Arg Arg Leu Ala pFF NH₂ (SEQ ID No. 298)
 H- Arg Arg Leu Ala mClF NH₂ (SEQ ID No. 299)
 H- Arg Arg Leu Gly pFF NH₂ (SEQ ID No. 301)
 H- Arg Arg Leu Gly mClF NH₂ (SEQ ID No. 302)
 H- Arg Arg Ile Asn pFF NH₂ (SEQ ID No. 304)
 H- Arg Arg Ile Asn mClF NH₂ (SEQ ID No. 305)
 H- Arg Arg Ile Ala pFF NH₂ (SEQ ID No. 307)
 H- Arg Arg Ile Ala mClF NH₂ (SEQ ID No. 308)
 H- Arg Lys Leu Asn mClF NH₂ (SEQ ID No. 350)
 H- Arg Lys Leu Ala pFF NH₂ (SEQ ID No. 352)
 H- Arg Lys Leu Ala mClF NH₂ (SEQ ID No. 353)
 H- Arg Lys Leu Gly pFF NH₂ (SEQ ID No. 355)
 H- Arg Lys Ile Asn pFF NH₂ (SEQ ID No. 358)
 H- Arg Arg Leu Ile pFF NH₂ (SEQ ID No. 375)